

Docket No. AUS920010757US1

CLAIMS:

What is claimed is:

1. A method in a data processing system including a
5 storage device, said method comprising the steps of:
 providing a write cache in said storage device; and
 executing a FAST WRITE operation utilizing said
write cache only when writing particular types of data,
wherein a command complete status is returned prior to
10 writing data during said FAST WRITE operation and a
command complete status is returned only after writing
data when said FAST WRITE operation is not executed.
2. The method according to claim 1, further comprising
15 the step of executing said FAST WRITE operation only when
writing particular amounts of sequential data.
3. The method according to claim 1, further comprising
the steps of:
20 receiving an instruction to write first data to said
storage device;
 determining whether said first data is said
particular types of data;
 in response to a determination that said first data
25 is said particular types of data, returning a command
complete status and then writing said first data to said
storage device; and
 in response to a determination that said first data
is said not particular types of data, writing said first
30 data to said storage device and then returning a command
complete status.

Docket No. AUS920010757US1

4. The method according to claim 1, further comprising the steps of:

receiving an instruction to write first data to said storage device;

5 determining whether said first data is sequential data;

in response to said first data being sequential data, determining whether said first data can be written within a particular time frame;

10 in response to a determination that said first data is sequential data that can be written within said particular time frame, returning a command complete status and then writing said first data to said storage device;

15 in response to a determination that said first data is sequential data that cannot be written within said particular time frame, writing said first data to said storage device and then returning a command complete status; and

20 in response to a determination that said first data is non-sequential data, writing said first data to said storage device and then returning a command complete status.

25 5. The method according to claim 4, further comprising the step of specifying said particular time frame, wherein said particular time frame is a minimum amount of time between a receipt of a power loss signal and a loss of power to said data processing system.

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6. The method according to claim 4, wherein the step of determining whether said first data can be written within

Docket No. AUS920010757US1

a particular time frame further comprises the step of determining an amount of time required to write said first data to said storage device.

- 5 7. The method according to claim 6, wherein said step of determining an amount of time required to write said first data to said storage device further comprises the steps of:

determining an amount of said first data;
10 determining a physical location in said storage device where said first data is to be written; and
determining an amount of time required for a read/write head to move to said physical location.

- 15 8. A computer program product in a data processing system including a storage device, said computer program product comprising:

instruction means for providing a write cache in said storage device; and
20 instruction means for executing a FAST WRITE operation utilizing said write cache only when writing particular types of data, wherein a command complete status is returned prior to writing data during said FAST WRITE operation and a command complete status is returned
25 only after writing data when said FAST WRITE operation is not executed.

9. The product according to claim 8, further comprising instruction means for executing said FAST WRITE operation
30 only when writing particular amounts of sequential data.

Docket No. AUS920010757US1

10. The product according to claim 8, further comprising:

instruction means for receiving an instruction to write first data to said storage device;

5 instruction means for determining whether said first data is said particular types of data;

in response to a determination that said first data is said particular types of data, instruction means for returning a command complete status and then writing said
10 first data to said storage device; and

in response to a determination that said first data is said not particular types of data, instruction means for writing said first data to said storage device and then returning a command complete status.

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11. The product according to claim 8, further comprising:

instruction means for receiving an instruction to write first data to said storage device;

20 instruction means for determining whether said first data is sequential data;

in response to said first data being sequential data, instruction means for determining whether said first data can be written within a particular time frame;

25 in response to a determination that said first data is sequential data that can be written within said particular time frame, instruction means for returning a command complete status and then writing said first data to said storage device;

30 in response to a determination that said first data is sequential data that cannot be written within said particular time frame, instruction means for writing said

Docket No. AUS920010757US1

first data to said storage device and then returning a command complete status; and

in response to a determination that said first data is non-sequential data, instruction means for writing
5 said first data to said storage device and then returning a command complete status.

12. The product according to claim 11, further comprising instruction means for specifying said
10 particular time frame, wherein said particular time frame is a minimum amount of time between a receipt of a power loss signal and a loss of power to said data processing system.

13. The product according to claim 11, wherein said instruction means for determining whether said first data can be written within a particular time frame further comprises instruction means for determining an amount of time required to write said first data to said storage
20 device.

14. The product according to claim 13, wherein said instruction means for determining an amount of time required to write said first data to said storage device
25 further comprises:

instruction means for determining an amount of said first data;

instruction means for determining a physical location in said storage device where said first data is
30 to be written; and

Docket No. AUS920010757US1

instruction means for determining an amount of time required for a read/write head to move to said physical location.

5 15. A data processing system including a storage device, comprising:

a write cache in said storage device; and

10 a storage device controller for executing a FAST WRITE operation utilizing said write cache only when writing particular types of data, wherein a command complete status is returned prior to writing data during said FAST WRITE operation and a command complete status is returned only after writing data when said FAST WRITE operation is not executed.

15 16. The system according to claim 15, further comprising said controller for executing said FAST WRITE operation utilizing said write cache only when writing particular amounts of sequential data.

20 17. The system according to claim 15, further comprising:

said controller for receiving an instruction to write first data to said storage device;

25 said controller for determining whether said first data is said particular types of data;

in response to a determination that said first data is said particular types of data, said controller for returning a command complete status and then writing said first data to said storage device; and

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in response to a determination that said first data is said not particular types of data, said controller for

Docket No. AUS920010757US1

writing said first data to said storage device and then returning a command complete status.

18. The system according to claim 15, further
5 comprising:

said controller for receiving an instruction to write first data to said storage device;

said controller for determining whether said first data is sequential data;

10 in response to said first data being sequential data, said controller for determining whether said first data can be written within a particular time frame;

in response to a determination that said first data is sequential data that can be written within said
15 particular time frame, said controller for returning a command complete status and then writing said first data to said storage device;

in response to a determination that said first data is sequential data that cannot be written within said
20 particular time frame, said controller for writing said first data to said storage device and then returning a command complete status; and

in response to a determination that said first data is non-sequential data, said controller for writing said
25 first data to said storage device and then returning a command complete status.

19. The system according to claim 18, further comprising a particular time frame, wherein said particular time
30 frame is a minimum amount of time between a receipt of a power loss signal and a loss of power to said data processing system.

Docket No. AUS920010757US1

20. The system according to claim 18, wherein said controller for determining whether said first data can be written within a particular time frame further comprises said controller for determining an amount of time
5 required to write said first data to said storage device.

21. The system according to claim 20, wherein said controller for determining an amount of time required to write said first data to said storage device further
10 comprises:

said controller for determining an amount of said first data;

said controller for determining a physical location in said storage device where said first data is to be
15 written; and

said controller for determining an amount of time required for a read/write head to move to said physical location.